

SPENCER F550 SAM INITIAL ATTACK STOCK UNIT #1740

Ford F550 Crew Cab Chassis

Hale DSD 1500 GPM Pump

SAM Pump Control System

250 Gallons

Foam System

Solid-Poly Body



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PROPOSED APPARATUS

Spencer Manufacturing, Inc. of South Haven, MI will furnish the Fire Department with the apparatus described in your detailed specifications including all boilerplate items.

The proposed Spencer apparatus will be constructed at our factory in South Haven, MI. Preconstruction and inspection trips outlined will be provided including provisions for periodic unscheduled inspections described in the boilerplate.

Warranty and continuing service will be provided by Spencer Manufacturing via road service or at our factory in South Haven, MI.

Additional service can or will be provided by our dealer network and/or approved service centers.

LIABILITY

Spencer Manufacturing shall defend any and all suits and assume all liability for the use of any patented processes, devices or articles forming a part of the apparatus or any appliance under the contract.

DESIGN

The apparatus combines our time-tested design and construction standards with full consideration given the scope of your specification. Please see our proposal and drawing for full details.

ROAD TEST

The apparatus is road-tested at Spencer Manufacturing, Inc., at completion and will meet the standards set forth in NFPA 1900, current edition.

NFPA REQUIRED ITEMS

The purchaser shall be responsible for providing all equipment items required by NFPA pamphlet that are not otherwise indicated or addressed in these specifications.

COOPERATIVE PURCHASING

The apparatus manufacturer shall honor the specifications and pricing of this proposed build for other agencies that wish to purchase similar apparatus through cooperative purchasing. Changes of chassis, year model, equipment and/or additional change orders shall be reflected in the new contract.

CONSTRUCTION DRAWINGS

A basic drawing will be included with the proposal. Upon award a fully detailed drawing will be supplied to the Fire Department. The drawing shall be signed and returned to the manufacturer and kept on file for future reference.

INSPECTION TRIPS

Inspection trips shall be covered at the expense of the department.

Timing of the trip shall be coordinated between the customer and selling dealer.

DELIVERY

The completed apparatus will be delivered at the Spencer Manufacturing facility in South Haven, MI. Apparatus review will be provided by factory personnel during the acceptance process.

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SEATING CAPACITY PLATE

A permanent plate indicating seat belt use and occupancy shall be installed in a visible location.

HELMET WARNING PLATE

A permanent plate stating "DO NOT WEAR HELMET" shall be installed in a visible location.

FLUID CAPACITY PLATE

A permanent plate listing all fluids and capacities shall be installed in a visible location.

OVERALL HEIGHT PLATE

A plate indicating overall height, overall length, overall width, and the vehicle GVRW shall be installed in a location visible to the driver.

TAILBOARD PLATE

A permanent plate shall be installed at the rear indicating "DO NOT RIDE ON REAR STEP".

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FORD COMMERCIAL CHASSIS

The following chassis and options shall be provided.

- 2024 Ford F550 Crew Cab Chassis 4x4
- 203" Wheelbase 84" CA
- 6.7L V8 Diesel engine/10 speed automatic Torqshift transmission
- XLT equipment package
- Race Red exterior
- Medium dark slate cloth 40/20/40 seats
- Carpet delete
- Payload Upgrade package – 19,500# GVWR
- High Capacity Trailer Tow Pkg
- 4.30 Limited Slip rear axle
- Aft axle fuel tank
- 410 Amp Heavy Duty alternator
- Electric shift on the fly 4x4
- 225/19.5 Max traction tires
- Forged aluminum wheels
- Fire Rescue Prep package
- Rear view camera prep kit

CHASSIS WARRANTY

The chassis shall be warranted by the chassis manufacturer per the terms outlined in the detailed warranty document. The warranty will be provided with the completed apparatus.

EXHAUST MODIFICATION

The chassis exhaust pipe and muffler shall be extended to the front of the right rear wheel and shall be pointed out. Any heat shields required to protect the body and/or compartments from heat shall be installed.

CHASSIS SETUP

The chassis shall have adjustments made to ensure the proper configuration for accepting pumps and/or bodies. This shall include the repositioning of air tanks, frame cross members, step adjustments, etc.

CAB RUNNING BOARDS

There will be two (2) aluminum open grit running boards provided and mounted to the chassis cab. The running boards will run from the front wheel well to the back of the chassis cab, one (1) each side. The running boards shall be powder coated black.

BATTERY CONDITIONER

A Pro-Power PS1ES single battery conditioner will be installed in a dry, protected area of the apparatus. The maximum output will be 15 amperes, supplied as required to the battery system. When fully charged, the conditioner will shut down.

- The conditioner will be wired to the 120-V shore power inlet.

BATTERY CONDITIONER GAUGE

An LED waterproof charge display shall be installed adjacent to the shore power inlet.

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SHORE POWER RECEPTACLE

A KUSSMAUL 20-amp super auto-eject type receptacle shall be provided. This receptacle shall eject the male shore line from the apparatus when the engine starter switch is energized. The receptacle will be provided with a weather-proof cover. An appropriate end shall be provided.

SHORE POWER LOCATION

The shore power receptacle shall be located in the cab fender area.

WEATHER PROOF COVER

The cover for the shore power receptacle shall be Red in color.

BACKUP ALARM

There shall be an electronic beeper that makes sounds when the truck is placed in reverse. The beeper shall be heard over all engine noise to warn people on or near the truck.

CONSOLE / STORAGE BOX

A Plastix Plus Poly console and storage box will be installed between the driver and officer seats of the commercial chassis.

The apparatus switch box, siren and other accessories will be installed on the top face of the box with recessed brackets.

There shall be a storage area towards the back of the top face for books and binders. A padded hinged lid shall be provided.

Two (2) cup holders shall be included in the console rear of the accessories and forward of the storage box.

The console exterior shall be black.

REAR TOW EYES

There shall be two (2) rear tow eyes below the body that will be attached to the rear of the chassis frame.

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PUMP OPERATOR'S PANEL - SIDE MOUNT

The operator's control panel shall be located on the left side of the apparatus. The upper portion of the panel will include the engine function and auxiliary gauges, gauge test panel, pump governor, discharge gauges for secondary discharge lines. It will be hinged to swing open, held at the end with appropriate fasteners.

The center portion of the panel will serve as a structural member and a guide for auxiliary discharge line controls.

The lower portion of the left panel will include all side discharge ports, gauges and drains, pony suction and main suction inlets, primer control and tank to pump lines.

The upper portion of the right pump panel will be a hinged door with an appropriate latch mechanism. This will allow for easy service access to the pump and plumbing.

The lower portion of the right panel will include the right discharges, pony suction (if applicable) and the main suction inlet for the pump.

The apparatus body and pump panel modules shall be constructed as independent structures to allow body flexing and to prevent fatigue from normal chassis movement. There shall be a 1" wide gasket installed between the body and the pump panel module.

PUMP PANELS AND DOORS

The pump panels and pump access doors shall be constructed of brushed stainless steel.

PUMP MODULE RUNNING BOARDS

The pump module running boards will be constructed of 1/8" aluminum polished treaded diamondplate. Module support extrusions will be drilled and tapped for application of stainless steel fasteners to hold the panels in place. The panels are to be easily removable for service.

SIDE MOUNT FIRE PUMP MODULE INSTALLATION

The fire pump, pump assembly, plumbing, intakes, outlets, and accessories shall be installed on the chassis.

PUMP MODULE FACE PACKAGE

The front face of the pump module will be trimmed with 1/8" polished diamondplate aluminum. Module support extrusions will be drilled and tapped for application of stainless steel fasteners to hold the panels in place. The panels are to be easily removable for service.

LEFT PUMP PANEL LIGHT

The left pump panel shall be lit with LED strip lighting. Each strip light shall be mounted under a formed light shield. The lights will be controlled by the parking brake switch.

RIGHT PUMP PANEL LIGHT

The right pump panel shall be lit with LED strip lighting. Each strip light shall be mounted under a formed light shield. The lights will be controlled by the parking brake switch.

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COLOR CODED PUMP PANEL

All valve controls, discharges and drains shall be labeled, and color coded to the customer's specifications.

HALE DSD PUMP

Pump Assembly

1. The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 1500 gallons per minute (U.S. GPM), NFPA-1901 rated performance.
2. The entire pump shall be assembled and tested at the pump manufacturer's factory.
3. The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.
4. The entire pump shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by the latest NFPA Pamphlet No. 1901. Pump shall be free from objectionable pulsation and vibration.
5. The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2069 bar). All metal moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.
6. Pump body shall be vertically split, on a single plane for easy removal of entire impeller assembly including clearance rings.
7. Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.
8. The pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machines, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.
9. Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined hand ground and individually balanced. The vanes of the impeller intake eyes shall be hand ground and polished to a sharp edge and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.
10. Impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body.
11. The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless steel. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

Gearbox

1. Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque of the engine. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.
2. The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4 inches in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine.
3. All gears, both drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated and hardened, to give an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)
4. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.
5. If the gearbox is equipped with a power shift, the shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.
6. For automatic transmissions, three green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift from Road to Pump position. Two green lights

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to be located in the truck driving compartment and one green light on pump operators panel adjacent to the throttle control. For manual transmissions, one green warning light will be provided for the driving compartment. All lights to have appropriate identification/instruction plates.

SAM CONTROL SYSTEM WITH DUAL SCREENS

SYSTEM FUNCTIONALITY

A SAM control system shall be provided. The control system shall automatically control the following elements of the pumping process:

- Open tank to pump automatically and re-circulate water as needed to protect the pump
- Open discharge valves and charge to an operator set pressure and then maintain that pressure by gating the discharge valves as necessary and/or managing the pump discharge pressure.
- Control engine speed as needed to maintain individual line discharge pressures set by the operator
- Automatically switch sources from tank to hydrant or from tank to draft functions at the operator request without requiring the operator to independently manipulate the valve positions
- Automatically refill the tank when secondary water supply is available
- When flowing from a pressurized source, the system will monitor the intake pressure and reduce engine speed so it does not drop below purchaser specified pressure 10-30psi and alert the user if the system has low supply pressure
- Alert the operator audibly and visually of any problems with the system or with water flow and pressure settings

The system shall include automatic control of the following system components:

- Intake valve(s)
- Tank to pump valve
- Tank fill valve
- Discharge valve(s)
- Engine speed

The system shall accomplish the above by having the discharge valves, intake valves, and pressure governor on networks with all components in communication with each other at all times. These components must be configured, networked, and tested as part of the pump assembly prior to shipment to the OEM.

The system shall operate in two modes – automatic and manual.

The system shall include a control center interface, a pump controller interface and a throttle control knob which provide all necessary system control in both automatic and manual mode.

SYSTEM CONTROL INTERFACE SCREENS (Two (2) - One (1) each side)

Control Center

Automatic mode: The interface shall include the following features available

- It shall display up to 6 active discharges in discharge control boxes Within each box, it shall show the set pressure and the actual pressure of the discharge. It shall indicate the color of the discharges in each discharge box as well as display any the status of the active discharges and provide a low flow indication if the nozzle is closed or there is a kink in the line. It shall also indicate if there are any problems with the valve and shall indicate whether CAFS or FOAM is active if a SmartFOAM or SmartCAFS system is included.
- It shall show the available intakes and the status of the intake valves.
- It shall show the water tank level and foam tank level
- It shall show the status of the tank and indicate whether the intake(s) is supplying water to the pump or whether the tank is supplying water to the pump
- If an intake valve is open, the control center shall display the intake pressure

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- It shall include 4 configurable quickset circles that can be used to quickly set the pressure and open discharge lines by dragging the quickset circles to the target in the discharge area of the display
- It shall include an information center to indicate things that are happening with the system as they are occurring
- It shall include pop-up warning boxes to indicate any problems with the system or warning regarding water flow throughout the system

When in auto mode, the control center interface shall allow the operator to do the following from the interface:

- set pressure on individual discharges
- adjust the set pressure
- close the discharge line
- select an intake to open
- select whether the intakes are set to draft or pressurized water source
- switch back to tank water and close the intake

When in automatic mode the operator will not be required to operate any individual discharge valves, governor settings, or any individual intake settings.

IF SmartFOAM or SmartCAFS system is installed, the operator shall be able to also do the following from the control center:

- turn on CAFS to wet, medium or dry or foam only from the discharge control screen
- turn on FOAM to a preset percentage from the discharge control screen
- turn CAFS or FOAM off

Manual mode: The control center interface shall include a manual mode. When in manual mode, the operator shall have control over each of the intakes and discharges from the control center. Each discharge valve shall show line pressure and valve position and allow the operator to open and close the valve. The manual control screen shall include a way to send the system back to auto mode if the operator chooses.

The control center shall be a 10.6" display with a bonded LCD, anti-glare coating and PCAP touch screen. It shall include 2 CAN network inputs and a USB 2.0 connection. The operating voltage shall be 6-36VDC, shall have an operating temperature of -40°F to 185°F and shall have a environmental rating of IP67.

Pump Controller

Automatic mode: When the system is in auto mode, the interface shall include the following features:

- A separate touch screen interface consisting of several pages that can be accessed by the operator. These pages to include:
 - a. Home screen
 - b. Tank
 - c. Pump info
 - d. Video
 - e. Engine Data
- The home screen shall include master intake pressure, master discharge pressure and engine speed, status of tank fill and tank to pump valves, pump capacity and status box that indicates system is in AUTO mode. The pump capacity shall be a real time indication of the current flow and available flow from the pump based on intake pressure and other dynamic factors used to calculate the real time pump capacity at high flows. The flow shall update automatically as conditions change.
- The tank screen shall indicate status of tank to pump and tank fill valves as well as an indication that tank to pump and tank fill valves are being automatically controlled by system in auto mode.
- The pump information screen shall include the following information:

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- a. Pump capacity
- b. Anode status for three (3) installed anodes
- c. Gearbox oil status
- d. Autolube oil status
- e. Gearbox temperature
- f. Pump temperature
- g. Pump details including: Pump Model, Rating, Gearbox, Gear Ratio, Pump Assy Plate No, Gearbox Assy Plate No, Manufacture date, Hale Pump Factory Test Data
- The video screen shall include a display of a video feed and allow the user to toggle between up to 3 available video inputs.
- The Engine Data screen shall include battery voltage, coolant temperature, oil pressure, transmission temperature and warnings.

Manual mode: The pump controller interface will revert to standard pressure governor operations when manual mode is requested by user or when the system defaults to manual mode.

The pump info, video and engine data tabs shall be the same as operation described in auto mode. The home screen and tank screen shall have the following functions.

The home screen shall include pressure governor controls, pump capacity indication and tank to pump and tank fill valve status indication. The home screen shall include the following:

- Mode select. Allows the user to select PSI or RPM mode
- Master intake and master discharge pressure display
- Increase and decrease buttons to increase and decrease the pressure or RPM depending on what mode is selected
- User configurable quickset circles for pressure and RPM
- Indication of set pressure when in PSI mode
- Status of tank fill and tank to pump valve and indication if system is recirculating
- Pump capacity indication

The tank screen shall include control of the tank to pump and tank fill valves and indication of valve position. The operator shall be able to open or close the tank fill and tank to pump valve when in manual mode.

The pump controller shall be a 7" display with a bonded LCD, anti-glare coating and PCAP touch screen. It shall include three NTSC/PAL video inputs, 2 CAN network inputs and a USB 2.0 connection. The operating voltage shall be 6-36VDC, shall have an operating temperature of -40°F to 185°F and shall have an environmental rating of IP67.

Throttle Control Knob

A throttle control knob shall be provided to control the speed of the engine. The throttle control knob shall include a master IDLE button that sends the engine to IDLE and switches the SAM system to manual mode when pressed. The throttle control knob shall communicate using J1939 CAN data link protocol. It shall have two indicator LEDs on it. One to indicate ACTIVE and the second to indicate THROTTLE READY. The operating voltage shall be 9-32VDC, shall have an operating temperature of -40°F to 185°F and shall have an environmental rating of IP67.

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SYSTEM WARNINGS

The system shall provide audible warnings when the following conditions occur:

- Pump Engaged, SAM ready
- SAM disabled
- Discharge Opening
- Low Intake Pressure
- Low tank water
- out of water
- Hydrant established
- Draft established
- draft problem
- High LDH Pressure

SYSTEM REQUIREMENTS

The system shall allow for the following number of valves:

- 4 intake valves
- 12 discharge valves
- 1 tank to pump valve
- 1 tank fill valve

The system requires that the following components be specified:

- Qmax or QMax-XS pump
- Akron Brass electric valves with pressure transducers for all discharge valves
- Hale electric MIV intake valves
- Class 1 ITL-40 tank level gauge
- Hale SPV Primer

The system shall include all necessary harnessing and electronic modules to provide system functionality described above. The system shall be shipped from the pump manufacturer with all required valves, electronic modules, sensors, harnessing and panel mounted components necessary for the function of the system. The system shall be configured and tested at the pump manufacturer prior to shipment to the OEM.

SAM™ SMART NOZZLES

SYSTEM FUNCTIONALITY

A SAM Smart Nozzle system shall be provided. The wireless, battery-operated Smart Control Console is an integrated unit mounted to the inlet of the Akron nozzle. The system shall include the following components:

- Two SAM Smart Nozzles – Available with Akron's Turbojet™, Assault, and Smooth Bore Nozzles
- Truck installed radio interface and antenna
- Batteries, spare set of batteries and a USB charger

The Smart Nozzle shall include space for two batteries that are easily removeable to facilitate charging. Two additional batteries and charger shall be included with each SAM Smart Nozzle.

The SAM Smart Nozzle shall be designed to work with SAM automated systems. The nozzle will include an easy-to-read incorporated tank level gauge. When the system is operating off the apparatus tank the gauge will work as a normal tank level gauge with green (full tank), yellow (partially filled tank), and red (low tank) lights indicating the tank level. The tank level gauge will flash red when running out of water is imminent. When the apparatus transitions to a permanent water source besides the tank the tank level gauge will switch to a blue light indicating the transition has been made.

The SAM Smart Nozzle will include two function buttons on each side of the Smart Control Console. When the two buttons are pressed simultaneously, for a minimum of 2 seconds, the SAM Smart Nozzle

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communicates with the SAM system to charge the line. The SAM system will open the valve corresponding to the preconnect and set it a pressure level to achieve the calibrated nozzle pressure.

The SAM Smart Nozzle uses wireless technology that allows it to operate up to 300 feet of preconnected hose into structures.

The SAM Smart Nozzle shall include an integrated pressure transducer. The pressure transducer feeds pressures back to the SAM system in a continuous closed loop system. This closed loop system automatically maintains the proper nozzle calibrated pressure of the nozzle. The SAM Smart Nozzle maintains the calibrated pressure during elevation changes of up to five (5) floors above and two (2) floors below grade. If communication is lost between the SAM Smart Nozzle and the SAM system, the system will maintain the last known setting of the valve and the nozzle will still function as a normal handline nozzle.

When used with a SAM system the SAM Smart Nozzle allows for kinked hose detection. When the system sees low pressure at the nozzle the system triggers an increase of pressure at the valve on the apparatus. If the nozzle pressure does not rise, the pressure in the line is increased, up to 20 psi, to overcome the kink. Once the kink is overcome the system transitions to the normal line pressure required to attain the correct nozzle pressure.

With the SAM Smart Nozzle installed, the pump operator will be able to see valve pressure, rated nozzle pressure, actual nozzle pressure, hose/friction loss, battery life and signal strength for each discharge on the SAM display.

The system requires that the following components be specified:

- SAM System
- SAM BOOST System

MECHANICAL SEAL

The pump shall include a mechanical seal.

AKRON VALVES

All suction and discharge valves, including tank to pump lines, will be AKRON brand.

U. L. TEST PLUGS

Two U. L. test plugs shall be pump panel mounted for UL testing of vacuum and pressures.

PUMP TEST - 1500 GPM

The pump will meet and perform the following test.

- 100% of rated capacity at 150 PSI net pump pressure.
- 100% of rated capacity at 165 PSI net pump pressure.
- 75% of rated capacity at 200 PSI net pump pressure.
- 50% of rated capacity at 250 PSI net pump pressure.

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PUMP ANODES

Three (3) sacrificial anodes shall be installed in the pump as follows:

- Intake manifold - two (2)
- Discharge manifold - one (1)

The anodes shall be drilled to indicate that they should be replaced when they leak.

PUMP PRIMER - OIL-LESS

A Hale 12 volt oil-less primer shall be installed on the pump. The primer shall be the Hale ESP and shall have the SPV push button control.

PUMP COOLER

A pump cooler recirculating line and valve shall be installed. It shall be connected to the discharge side of pump to a valve located on pump panel and back to inlet side of pump.

PUMP SHIFT

A power shift shall be installed in a convenient location to engage fire pump. Two indicator lights located next to the pump shift controls shall be installed. One shall indicate that the pump shift has been successfully completed. The other will indicate that the pump is engaged, the chassis transmission is in pump gear, and the parking brake is engaged.

A "Throttle Ready" indicator light shall be provided at the pump operator's panel that indicates the apparatus is in "OK to Pump" mode.

PUMP SHIFT INDICATOR

A green light to indicate that the pump is in gear shall be mounted on the cab dash and on the pump panel.

HALE SMARTFOAM 2.1A FOAM SYSTEM

A 12-volt DC powered variable-speed electronic direct-injection foam-concentrate proportioning system with a 2.1-gpm-foam concentrate pump shall be integrated into the apparatus to provide foam proportioning. The pump shall be capable of handling Class A foam concentrate only and be operated by a full-function panel mounted digital display.

The system shall operate via a paddlewheel flow sensor mounted in a 3-inch stainless steel single waterway check-valve manifold that includes a ½-inch chemical injection point check valve.

The inlet of this stainless steel manifold/check-valve assembly will be connected to the fire pump, and the outlet connected to the foam capable discharge outlet(s) on the fire apparatus, as specified. The flow sensor/stainless-steel foam manifold combination shall be capable of water or foam solution flow rates of 20- to 1000-gpm.

The foam proportioning system shall be equipped with a panel mounted digital display control unit with a microprocessor that monitors total water flow and foam concentrate pump output to provide the operator preset proportional amount of foam concentrate injected on the discharge side of the fire pump. Total foam concentrate pump concentrate output shall be 2.1 gallons per minute. Proportioning rate is push-button set by the pump operator on the digital display from 0.1% to 1%, in 0.1% increments.

The digital display panel mounted electronic operator control unit shall provide concentrate injection readout in tenths of a percent while also being able to read water flow, total water flowed and total amount of foam

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concentrate used. The control shall flash a warning indicating low concentrate in the reservoir to the operator, and shall be able to shut off the concentrate pump to prevent damage to the pump. A bar graph on the control unit shall provide visual indication of system operating capacity and will indicate when capacity is exceeded.

Foam concentrate-proportioning systems that do not have the above panel mounted digital display informational features will not be accepted.

The foam concentrate pump shall be fed concentrate by a non-metallic housing foam concentrate strainer that is equipped with a service shut-off valve.

The unit will be fed 12-volt DC power from the apparatus electrical system, and be equipped with a chassis frame ground strap, per the foam proportioner manufacturers installation and operating instruction manual.

7. The foam system shall be equipped with a Class1 UltraView SmartFOAM Controller and a foam induction pump. The foam induction pump will be a:
 - a. Class1 2.1A piston style foam induction pump (12VDC | 24VDC) for use with Class A concentrates at a rated output of up to 2.1 gpm (8 lpm) and a maximum operating pressure of 250 psi (17.2 bar).
8. The SmartFOAM Controller will show the water flow per minute, foam percentage, total water flowed, and total foam flowed on the main screen without having to press any buttons. The SmartFOAM Controller will maintain a running total of the amount of water and foam used during the current power cycle.
9. The SmartFOAM Controller shall provide on-screen tutorials to assist the user during calibration.
10. The SmartFOAM Controller shall provide multiple language support.
11. The SmartFOAM Controller will allow push-button modification of the foam proportioning rate from 0.1% to 10.0% in 0.1% increments. The SmartFOAM Controller will always begin operation at the preset foam proportioning rate which is configured with a password protected set-up screen.
12. The foam concentrate pump discharge line shall be equipped with a bubble tight check valve, rated at 500 psi (34 bar) to prevent water flow into the concentrate pump from the apparatus fire pump. This valve shall be made from brass or 300 series stainless steel. This valve shall have a cracking pressure of 4-6 psi (0.3-0.4 bar) to prevent flowing concentrate through the pump due to head pressure from the concentrate reservoir.
13. Single tank foam systems shall include flushing capabilities via a three-way flush valve. A switch provided integral to the three-way valve will indicate when the valve is in the "FLUSH" position. The "FLUSH" position will provide fresh water-flushing capabilities to prevent foam concentrate deterioration of the foam pump.
14. Dual tank foam systems shall include a manually operated MDT II dual tank selector valve assembly (or) an air operated ADT dual tank selector valve assembly for switching between A and B tanks. The dual tank selector valve shall have a center selector position to provide fresh water-flushing capabilities to prevent foam concentrate deterioration of the foam pump. The SmartFOAM Controller will inform the user when a "FLUSH" operation is required. The SmartFOAM Controller will not allow the user to flow different types of foam through the system until a "FLUSH" operation is completed.
15. When the manual dual tank selector, single tank flush valve or a single tank system without flushing capabilities is installed a three way bypass valve shall be provided on the discharge of the foam pump to permit operation of the foam concentrate pump for test and calibration purposes without injecting foam concentrate into the water discharge. The bypass valve shall be capable of being panel mounted.

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16. The SmartFOAM Controller will protect the foam pump from being run “dry” by showing a “low foam” warning when the low-level tank switch is activated and only allowing the foam pump to run for another sixty (60) seconds before turning off the foam pump and showing a “no foam” warning.
17. In-line, field serviceable foam concentrate strainer(s) shall be installed in the foam concentrate suction line(s).
18. Foam concentrate proportioning systems that use a venturi (either directly or indirectly) to measure water flow, and therefore cause a restriction to that flow, will not be accepted.

STAINLESS PLUMBING

All plumbing shall be either stainless steel or high pressure hose with crimped stainless steel fittings. Any manifolds shall be stainless steel. All valves shall be bronze or stainless steel unless other specified.

STAINLESS PLUMBING WARRANTY - TEN YEARS

The manufacturer warrants to the original purchaser all stainless steel plumbing components installed by them and used in the construction of the apparatus water / foam plumbing systems against defects in workmanship and materials for a period of ten (10) years from delivery.

TANK TO PUMP

A 3" full flow valve shall be installed between the tank and pump suction.

VALVE

An Akron 8930 3" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

MASTER PUMP DRAIN

The master drain shall have the capacity to drain all lines and main pump at the same time. The master drain will be mounted on the pump panel and will be readily accessible.

LINE DRAINS

All suction and discharge lines (1-1/2" and larger) shall have a lever action quarter turn drain valve installed. Each drain valve shall be arranged adjacent to the valve or in a convenient location on the left and/or right pump panel. Remote drain lines will be clearly marked with color coded tags.

INTAKE RELIEF VALVE

A stainless steel suction relief valve will be installed on the suction port of the main fire pump. The valve will be adjustable from 75-250 PSI. The valve will terminate at a 2-1/2" NST-M flange; a cap will be available for emergency use.

STOCK UNIT #1740- INITIAL ATTACK

PUMP TO TANK LINE

There shall be a 2" pump to tank fill line installed with a 2" inline valve. The valve shall be controlled from the pump panel.

VALVE

An Akron 8920 2" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

6" STEAMER INLETS (2)

Two (2) 6" steamer inlets will be provided, one (1) left side and one (1) on right side.

CHROME CAP(S)

6" NST chrome cap(s) with long handles shall be supplied for the inlet(s).

MASTER INTAKE VALVE - ELECTRIC

An electric butterfly valve with a built-in pressure relief valve, manual override hand wheel and air bleeder system, shall be installed on the left side main suction tube of the midship pump. This valve shall be installed behind the pump panel. The electric controls shall be located on the pump panel.

MASTER INTAKE VALVE - ELECTRIC

An electric butterfly valve with a built-in pressure relief valve, manual override hand wheel and air bleeder system, shall be installed on the right side main suction tube of the midship pump. This valve shall be installed behind the pump panel. The electric controls shall be located on the pump panel.

LEFT 2-1/2" SUCTION INTAKE

A 2-1/2" ball-type suction valve shall be installed on the left side pump panel with the valve body mounted behind the pump panel.

VALVE

An Akron 8925 2.5" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

STOCK UNIT #1740- INITIAL ATTACK

INLET ADAPTER

The suction valve shall come equipped with a brass inlet strainer and a 2-1/2" NST chrome inlet swivel.

INLET PLUG

The suction valve shall come equipped with a chrome plug with chain.

LEFT SIDE - 2-1/2" DISCHARGE

One (1) 2-1/2" discharge shall be located on the left side pump panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures, and operated from the panel. The threads on the valve shall be 2-1/2" NST. The discharge shall come equipped with a 3/4" drain valve.

VALVE

An Akron 8925 2.5" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

DISCHARGE ELBOW

A chrome 2-1/2" elbow shall be supplied with the discharge.

DISCHARGE CAP

A 2-1/2" chrome cap and chain shall be supplied with the discharge.

RIGHT SIDE - 3" DISCHARGE

A 3" discharge shall be located on the right side pump panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures, and operated from the pump panel. The threads on the valve shall be 3" NST. The discharge shall come equipped with a 3/4" drain valve.

VALVE

An Akron 8930 3" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

STOCK UNIT #1740- INITIAL ATTACK

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

SLO-CLOSE VALVES

A SLO-CLOSE feature will be installed on all valves over 2-1/2" in size as directed by NFPA. These valves will allow full open and close functions without water hammer.

DISCHARGE ELBOW

A chrome 3" elbow shall be supplied with the discharge.

DISCHARGE CAP

A 3" chrome cap and chain shall be supplied with the discharge.

RIGHT SIDE - 4" DISCHARGE - 3" VALVE

There shall be a 4" discharge on the right pump panel. The discharge shall be piped to the discharge side of the pump through a 3" valve that shall be pump panel controlled. A 3/4" quarter turn drain valve shall be installed.

VALVE

An Akron 8930 3" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

SLO-CLOSE VALVES

A SLO-CLOSE feature will be installed on all valves over 2-1/2" in size as directed by NFPA. These valves will allow full open and close functions without water hammer.

STOCK UNIT #1740- INITIAL ATTACK

DISCHARGE CAP

A 4" chrome cap and chain shall be supplied with the discharge.

#1 CROSSLAY HOSEBED -1-3/4"

One (1) 1-3/4" crosslay shall be installed on top of the pump house. It shall be capable of holding 200' of 1-3/4" double jacket fire hose. A 2" mechanical swivel hose connector with 1-1/2" NH threads shall be used to provide access of hose in either direction.

VALVE

An Akron 8920 2" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

FOAM DISCHARGE

The discharge shall be foam capable.

#2 CROSSLAY HOSEBED -1-3/4"

One (1) 1-3/4" crosslay shall be installed on top of the pump house. It shall be capable of holding 200' of 1-3/4" double jacket fire hose. A 2" mechanical swivel hose connector with 1-1/2" NH threads shall be used to provide access of hose in either direction.

VALVE

An Akron 8920 2" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

STOCK UNIT #1740- INITIAL ATTACK

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

FOAM DISCHARGE

The discharge shall be foam capable.

CROSSLAY(S) HOSEBED COVER

There shall be an aluminum cover for the crosslays. The cover shall be constructed of 1/8" aluminum tread plate and be hinged with a stainless steel knuckle hinge.

CROSSLAY FLAPS

Side flaps for crosslays constructed of 22 ounce hypalon shall be installed to retain hose in the pre-connected beds per NFPA requirements.

Color: Black

2-1/2" FRONT OF HOSEBED DISCHARGE #1

A 2-1/2" front of hosebed discharge shall be provided using a 2-1/2" stainless steel pipe or flexible hose with a chrome 2-1/2" male NST adapter on the outside end. Discharge shall have a 3/4" drain valve.

VALVE

An Akron 8925 2.5" swing out valve with polymer ball shall be provided and installed for the discharge or intake.

ELECTRIC VALVE ACTUATION

The valve shall be activated with an Akron electric actuator.

ELECTRIC VALVE CONTROLLER

The Akron electric valve shall be controlled through the SAM touch screen(s).

DISCHARGE PRESSURE GAUGE

There shall be a 2-1/2" gauge that will have a 316 stainless steel bezel supplied with the discharge. The gauge face will be white and have black markings. The gauge will read 0 to 400 psi and will be accurate to within 1%. The gauge shall be located on the pump panel and placed in a well lighted position for night apparatus operation.

STOCK UNIT #1740- INITIAL ATTACK

POLYPROPYLENE WATER TANK

The booster tank shall have a capacity of 250 US gallons.

CONSTRUCTION:

The water tank shall be constructed of 1/2"-1" thick polypropylene or Polyrene sheet stock. This material shall be a non-corrosive thermo plastic.

The booster and/or foam tank shall be of a specific configuration and is so designed to be built as part of the body. The tank shall be constructed utilizing latest thermo plastic welding technology. The tank shall undergo extensive testing prior to installation in the truck. In addition, the completed tank shall be water pressure tested. Baffles, both longitudinal and latitudinal shall be interlocking and thermo welded to minimize water surge during travel, enhancing road handling stability. Openings in the baffles shall be positioned to allow water flow to NFPA standards during filling or pumping operations. The tank shall be mounted on hard rubber cushions to isolate the tank from road shock and vibrations. The tank shall be mounted according to manufactures recommendations. A lifetime manufacturer's statement of Warranty shall warrant each tank to be free from manufacturing defects in material and workmanship for the service life of the vehicle.

FILL TOWER AND COVER:

The tank shall have a combination vent and manual fill tower. The tower shall be located in the left front corner of the tank unless otherwise specified by the customer. The tower shall have a 1/4" thick removable polypropylene screen and a hinged cover. Inside the fill tower approximately 4" down from the top shall be fastened a combination vent overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I. D. of 4" that is designed to run through the tank and shall be piped behind the rear wheels to maximize traction.

SUMP:

There shall be one (1) sump standard per tank. On tanks that require front suction, 3" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3" NPT threaded inlet on the bottom for a drain plug. This shall be used as a combination clean out and drain.

OUTLETS:

There will be two (2) standard tank outlets: One for tank to pump suction line which shall be a minimum of 3" NPT coupling; and One for a tank fill line which shall be a minimum of 2" NPT coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.

DESIGN:

The tank shall be designed to include the body, compartments, hosebed, storage sleeves and any upper body compartments. The entire body, hosebed, tank and upper body storage shall be able to be removed with one set of lifting eyes.

POLYPROPYLENE TANK WARRANTY - LIFETIME

The water tank manufacturer shall warrant the booster/foam tank to be free from manufacturing defects in material and workmanship for the service life of the vehicle. The tank must be installed in accordance with tank manufacturer's installation recommendations. A copy of the tank manufacturer's warranty, including terms and limitations will be provided upon delivery of the completed apparatus.

STOCK UNIT #1740- INITIAL ATTACK

WATER TANK LEVEL GAUGE

A blue LED Class 1 water tank level display shall be installed on the pump panel. A single transducer will be installed in the water tank. A built-in calibration system allows this unit to be used with any tank configuration or material. A 10 foot harness is standard. The display includes 40 LED lights visible from 180 degrees.

INTERNAL FOAM CELL - CLASS "A" FOAM

There shall be a 10-gallon minimum capacity internal foam tank incorporated in the main water tank. The tank shall have an access hole for filling and cleaning and a discharge outlet.

CLASS "A" FOAM PLATES

A permanent plate identifying the foam cell contents as class "A" shall be placed on the top and on the inside of the lid for positive identification.

FOAM TANK LEVEL GAUGE

A red LED Class 1 Foam tank level display shall be installed on the pump panel. A single transducer will be installed in the foam tank. A built-in calibration system allows this unit to be used with any tank configuration or material. A 10 foot harness is standard. The display includes 40 LED lights visible from 180 degrees.

HOSEBED

The hose compartment floor will be constructed from a ribbed co-polymer polypropylene. The hose body floor ends will be slotted to allow for infinite adjustment of the hose bed dividers. The hosebed floor shall be constructed as part of the tank.

HOSEBED COVER

A 22 oz. hose bed cover shall be provided. The cover shall be fire retardant Hypalon material and installed over the hose bed. The cover shall have bungee straps along the sides and awning track on the front edge. The end of the hose bed cover shall be weighted and cover hose bed opening.

The hosebed cover shall be black.

HOSEBED DIVIDER

A hose bed divider shall be manufactured from 3/16" smooth aluminum plate with an extruded aluminum base welded to the bottom. The divider shall have an extruded track to slide in to allow the hose bed to be adjusted for different hose capacities. One end of divider shall have a 3" radius corner with a hand hole cutout provided. The divider shall be sanded as to prevent damage to hose.

DRIP CAP BODY SIDES

1/8" smooth aluminum drip caps shall be supplied on the upper side walls of the body.

STOCK UNIT #1740- INITIAL ATTACK

EXTRUDED ALUMINUM BODY SUPERSTRUCTURE

The body subframe is to be entirely welded, constructed of 6061-T6 extruded aluminum tubing with **minimum** dimensions of 2"x3"x1/4". All vertical components are to be reinforced to the substructure with 2"x2"x1/4" 6061-T6 TUBULAR gussets at strategic points to assure structural integrity.

The body sides are to be supported by 2"x2"x1/4" 6061-T6 structural aluminum tubing welded to form a continuous support matrix for the hose body and compartments.

The tank cradle will be designed to support the bottom of the water tank to prevent movement and structural damage when the unit is loaded and under motion. Reinforced rubber pads with a 60# rating will be installed in the cradle and at the corner angles to cushion the tank; no mechanical attaching devices will protrude through the rubber.

The apparatus body shall be entirely independent from the chassis frame. It is to be attached to the frame over 1/2" x 3" 60# rubber pads running the full length of body. The unit is to be designed so as to be removable from the chassis in the event of future chassis replacement.

POLY APPARATUS BODY

The 96" wide apparatus body is to be constructed from a co-polymer material with 1/2" to 1" material. The tank, body and compartments shall be fabricated as one unit. The compartment floors shall be supported by structure off of the aluminum subframe.

COMPARTMENTATION:

Each compartment shall be "sweep-out" style. The compartments shall be divided as follows:

Compartment	Interior Dimensions			Door Opening	
	Width	Height	Depth	Width	Height
L1	27	60	20/Transverse	24	56
L2	44	37	20	41	34
L3	42	60	15/20	39	56
B	44	29	40	41	25
R1	27	60	20/Transverse	24	56
R2	44	37	20	41	34
R3	42	60	20	39	56

SUPERSTRUCTURE AND BODY WARRANTY - LIFETIME

The manufacturer shall warrant to the original purchaser that the apparatus superstructure and body is structurally sound and free of all structural defects of workmanship and material and further warrants that it will maintain its structural integrity for the life of the apparatus. This warranty shall not pertain to issues of paint finish, hardware, moldings, or accessories. The warranty shall terminate upon transfer of possession or ownership by the original purchaser.

STOCK UNIT #1740- INITIAL ATTACK

L1 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

L2 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

ADJUSTABLE TRACKING

There shall be tracking installed in the compartment to accommodate the installation of air pack brackets and/or equipment. The tracks shall be installed horizontally on the back wall of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

L3 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

ADJUSTABLE TRACKING

There shall be tracking installed in the compartment to accommodate the installation of air pack brackets and/or equipment. The tracks shall be installed horizontally on the back wall of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

REAR COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

R1 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

R2 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

ADJUSTABLE TRACKING

There shall be tracking installed in the compartment to accommodate the installation of air pack brackets and/or equipment. The tracks shall be installed horizontally on the back wall of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

R3 COMPARTMENT

The following is a description of items included with the compartment.

ROLL UP DOOR - SATIN

ROM series 4 roll-up door will be installed in this compartment. The shutters will be constructed from extruded aluminum with a satin finish. Internally sealed for weather resistance and quiet operation. Rubber seals will be installed on the vertical components. The door will close/lock with a combination handle/locking bar on the exterior at the bottom.

The door will roll-up in the top of the compartment to allow for maximum use of the compartment interior. Lighting will be located on the vertical compartment walls for maximum effectiveness.

ROLL UP DOOR SILLS

An extruded aluminum door sill shall be provided for each roll up door.

ADJUSTABLE SHELF TRACKING

There shall be tracking installed in one (1) compartment to accommodate the installation of adjustable shelves and/or roll-outs. The tracks shall be installed vertically on the walls of the compartment.

ADJUSTABLE TRACKING

There shall be tracking installed in the compartment to accommodate the installation of air pack brackets and/or equipment. The tracks shall be installed horizontally on the back wall of the compartment.

LED COMPARTMENT LIGHTS

Two (2) extruded aluminum LED strip lights shall be installed in the compartment. The strip lights shall be installed in a vertical position and run the full height of the compartment, one (1) each side.

STOCK UNIT #1740- INITIAL ATTACK

COMPARTMENT INTERIOR FINISH - POLY BODY

The apparatus compartment interiors will be co-polymer constructed as part of the apparatus poly body.

RUBRAILS

Poly rub rails shall be provided along the lower edge of the apparatus body. The rub rail assemblies shall be spaced-out and isolated from the body with non-metallic materials. Each rub rail shall be a minimum of 1" thick and tapered at each end.

BODY FACE PACKAGE

The front face of the apparatus body will be painted with a tinted bedliner to match the body color.

REAR TAILBOARD

An 11" rear tailboard step will be provided. The step will be constructed from 1-1/2" extruded aluminum. Extrusion shall have a non-slip surface with punched holes. Tailboard shall be supported by heavy 2" x 2" x 3/8" angles welded directly to the body superstructure.

REAR WHEELWELL TRIM

The area around the rear wheel openings shall be constructed as part of the poly body and painted to match the apparatus body.

RUBBER FENDERETTES

Rubber fenderettes shall be installed on the rear wheelwells. They shall be bolted so as to be easily removable for service and/or replacement.

MUDFLAPS

Mud flaps shall be made from black hard rubber and shall be installed on the cab fenders, behind the front tires and on the body fenders, behind the rear tires.

MISCELLANEOUS HARDWARE

One bag of miscellaneous hardware shall be supplied with the finished apparatus. This hardware shall consist of nuts, bolts, screws, washers, etc. used in the manufacture of the apparatus.

FUEL INLET

There shall be a cast aluminum bezel around the fuel inlet. The bezel will be clearly marked "DIESEL FUEL ONLY".

DEF FILL

The DEF fill shall be located behind the passenger side swing open pump panel.

STOCK UNIT #1740- INITIAL ATTACK

SCBA BOTTLE STORAGE

Three (3) single SCBA bottle storage compartments shall be located in the rear wheel well area. The compartments shall be fabricated from an 8" diameter vacuum poly tube. The tubes will be supported at the opening by a formed flange bolted to the body. The bottom of each tube is also to be supported to eliminate breakage from vibration. The tubes are vented to facilitate moisture drainage. The compartment doors shall be a brushed stainless steel door secured by a positive latch. A webbing loop shall be installed inside the door to secure the bottle in place if the door is ajar.

GROUND LADDER STORAGE

Brackets for the storage of a 12' 2-Section ladder shall be provided and installed on the top of the body, passenger side.

SUCTION HOSE STORAGE

Trays for the storage of two (2) 8' x 6" suction hose shall be provided and installed on the top of the body, driver side.

PIKE POLE STORAGE

The apparatus shall be equipped with pike pole storage compartments configured through the hosebed area. The tubes will be sized to accommodate two (2) round handle pike poles with up to 6' length.

STOCK UNIT #1740- INITIAL ATTACK

LIGHTED FOLDING STEPS - FRONT - DRIVER SIDE

There shall be three (3) cast folding steps mounted as required on the front driver side of the apparatus body. The steps will be NFPA compliant. Each step shall include an LED light to light up the top of the step and another LED light to light up the area below the step. The lights will be activated with the parking brake.

LIGHTED FOLDING STEPS - FRONT - PASSENGER SIDE

There shall be three (3) cast folding steps mounted as required on the front passenger side of the apparatus body. The steps will be NFPA compliant. Each step shall include an LED light to light up the top of the step and another LED light to light up the area below the step. The lights will be activated with the parking brake.

LIGHTED FOLDING STEPS - REAR - DRIVER SIDE

There shall be two (2) cast folding steps mounted as required on the rear of the apparatus, driver side. The steps will be NFPA compliant. Each step shall include an LED light to light up the top of the step and another LED light to light up the area below the step. The lights will be activated with the parking brake.

LIGHTED FOLDING STEPS - REAR - PASSENGER SIDE

There shall be two (2) cast folding steps mounted as required on the rear of the apparatus, passenger side. The steps will be NFPA compliant. Each step shall include an LED light to light up the top of the step and another LED light to light up the area below the step. The lights will be activated with the parking brake.

INTERMEDIATE REAR STEP WITH GRAB HANDLES

An intermediate rear step will be provided at the rear of the apparatus for easy access to the top of the body. The step will be constructed from an open grip strut aluminum material or NFPA compliant diamondplate aluminum and bolted to extrusions in the structure of the apparatus body.

The intermediate rear step shall include laser cut hand holes to assist in climbing. The holes shall be large enough for a gloved hand and be located on each side of the step.

REAR BODY HANDRAILS

There shall be two (2) 30" long handrails manufactured from 1-1/4" diameter extruded aluminum with chrome end stanchions. They shall be mounted vertically at the rear of the apparatus body.

REAR TOP BODY HANDRAILS

There shall be two (2) 1-1/4" diameter extruded aluminum handrails installed at the top of the apparatus body to assist in entering and exiting the hosebed. The hand rail shall be supported with chrome stanchions.

FRONT OF BODY HANDRAILS

There shall be two (2) handrails manufactured from 1-1/4" diameter extruded aluminum with chrome end stanchions. They shall be mounted horizontally at the front of the apparatus body to assist in climbing the front steps.

In the event there is telescoping scene light, ladder or folding step installed in the same location(s), these items may be substituted in an effort to conserve mounting space on the body.

STOCK UNIT #1740- INITIAL ATTACK

POLY BODY PAINT FINISH

Poly body exterior shall have no mounted components prior to painting to assure full coverage.

All painted surfaces shall follow the following procedure to insure a lasting finish:

Poly surfaces shall be sanded to remove all burrs and imperfections in material.

Upon the application of the required body fillers and their preparation, the unit shall be primed with a coating designed for corrosion resistance and surface paint adhesion. A sandable primer filler shall then be sprayed on the surface. This primer will be sanded smooth leaving the best surface for top coat. The apparatus body shall be painted with a high luster polyurethane paint system.

PAINT COLOR AND CODE: Match primary chassis color

PAINT WARRANTY - FIVE YEARS

The paint performance guarantee will cover the areas of the vehicle finished with the specified product for a period of five (5) years beginning the day the vehicle is delivered to the purchaser.

The areas as outlined on the Guarantee Certificate will be covered for the following paint failures:

GUARANTEE INCLUSIONS: FULL APPARATUS BODY MANUFACTURED AND PAINTED BY THE MANUFACTURER:

- Peeling or de lamination of the topcoat and/or other layers of paint.
- Cracking or checking.
- Loss of gloss caused by cracking, checking, or hazing.
- Any paint failure caused by defective finishes which are covered by this guarantee.

All guaranteed exclusions, limitations, and methods of claims are covered in the full certificate provided to the original purchaser.

Not included in the guarantee is paint finish deterioration due to:

- Body corrosion/rust
- Scratches, abrasions, or stone chips
- The use of detergents or waxes not designed for automotive use
- Acid rain, chemicals, industrial fallout or other environmental effects
- Physical damage caused by accidents, vandalism or any negligent acts of the apparatus operators
- Paint or coatings on the vehicle's undercarriage, interior, or aerial structure
- Applied or painted graphics, reflective material
- Paints or coatings of supplier parts
- Mechanical abrasion or external foreign object damage
- Application of, or removal of, stickers or decals including replacement.
- Body compartment interior coatings, undercarriage and frame
- Bedliner finished or powder coated items

The paint warranty is a full term (non-prorated) warranty.

STOCK UNIT #1740- INITIAL ATTACK

TOUCH UP PAINT

A container with touch-up paint shall be provided with each truck. The container shall have a small touch-up brush that is attached to the top of the container.

DISSIMILAR METALS

The body and components shall be thoroughly protected against corrosion and/or oxidation caused by contact between dissimilar metals. These areas shall be protected by the use of corrosion resistant primers, gaskets and "ECK" (electrolic corrosion material) or any equivalent material.

LETTERING

No lettering will be provided or installed.

NFPA BODY STRIPE

A 4" body stripe of white reflective is to be furnished around the entire apparatus with the exception of the wheel wells, pump panels, grille and rear of the apparatus over the chevron material.

Straight pattern apparatus chassis and body

CHEVRON STRIPING - REAR

Chevron striping shall be applied to the entire rear wall of the apparatus body. The chevrons shall consist of 6" wide Diamond Grade reflective striping at 45 degree angles from the tailboard in an inverted "V" pattern. The stripes shall alternate colors. Chevron striping shall not be included on the roll-up door if one is present, unless otherwise noted.

Color A: Red

Color B: Fluorescent lime yellow

CAB DOOR REFLECTIVE

The interior of each door shall include high visibility reflective tape. A white reflective tape that measures 1" in width shall be provided vertically along the outer rear edge of the door.

STOCK UNIT #1740- INITIAL ATTACK

APPARATUS BODY ELECTRICAL SYSTEM

All electrical equipment installed by the apparatus builder shall conform to current automotive electrical system standards and the latest standards as outlined in NFPA #1901.

All electrical wire installed by the apparatus builder shall be rated to carry 125 percent of the maximum current for which the circuit is protected. A high-temp automotive primary wire that is insulated with chemically cross-linked Polyethylene and withstands prolonged temperatures of up to 350 degrees F. without melting or fusing shall be used. Wire shall be highly resistant to grease, oil, acids, brake fluid and abrasion. Wire shall meet or exceed S.A.E. specifications J1127.

Electrical connections in exposed areas outside of the cab shall be made using heat shrink or weather-proof connections. All connections shall have a corrosion preventative compound applied to them. All weather exposed lights shall have the sockets coated with this same compound.

Wire shall be individually color coded and be labeled every six (6") inches on the insulation. Wiring installed by body builder shall be run in a heat protective loom that is held in place with a rubber coated bracket that is fastened in place with stainless steel screws.

There will be two (2) wire terminal points that will be used as test points and for service. The location of these points will be in the apparatus cab and in an enclosed box recessed into the side or back wall of a rear compartment. All wire connections shall be protected to promote a lasting, corrosion-free connection. All exterior terminal blocks will be installed in a weather resistant box. All wire harnesses will be easily accessible and replaceable. All wires shall be protected by automatic circuit breakers that will reset.

WHELEN CENCOM CORE SYSTEM

The apparatus shall be equipped with a Whelen Cen-Com core electrical control system.

CEM-COM Core is a CAN-based communication system that provides true system synchronization, greater speed capabilities, expanded peripheral add-ons, full support of diagnostics, and is designed for optimal situational awareness programming.

Included features are;

- Supports any combination of 99 WeCanX devices.
- Support for multiple Whelen® peripherals of the same type on the same vehicle.
- All CANport™ signals are configurable as triggerable Events.
- Allows for access to every connector and fuse from the top of the box.
- Supports firmware updates via USB-C with Whelen Command™, our newest programming software.
- 12 logic inputs
- 1 ignition power-up input
- 4 analog inputs
- 2 15A outputs
- 4 10A outputs
- 16 2.5A outputs
- 1 dry contact relay
- Battery voltage sensor
- 200W amplifier

The following components shall be included:

- 1) C399 Core System
- 1) CCTL6 Siren and Light Control Head

All necessary expansion modules and harnessing shall also be included.

STOCK UNIT #1740- INITIAL ATTACK

CONTROLLER BRACKET

A flush mount siren / light controller bracket shall be supplied and installed in the center console/dash.

CORE PHOTOCELL

A Whelen LCPHOTO photocell for use with the CenCom Core system shall be supplied and installed to automatically dim the lights. A manual override button shall be located on the controller.

CAB MOUNTED SWITCH PANEL

A Whelen CCTL6 switch panel, designed for the specified chassis and body will be provided and mounted in the center console. Backlighting will glow at low intensity with the ignition on and at high intensity when the circuit is activated.

Each switch label will be specifically identified.

12-V NFPA TEST

The following NFPA 9-14 test requirements shall be performed:

- Reserve capacity test
- Alternator test at idle
- Alternator test at full load
- Low voltage alarm test

CLEARANCE LIGHTS AND REFLECTORS

Clearance lights and reflectors shall be installed to meet current DOT standards and include:

- Two (2) Red LED marker lights
- Four (4) Red reflectors
- Two (2) Amber reflectors
- One (1) Red LED three-light cluster under the rear step.

STOP/TAIL, TURN AND BACKUP LIGHTS

Whelen M6 series lights shall be installed at the rear of the apparatus as follows:

- Red LED stop/tail/turn light, one (1) each side
- Clear LED backup light, one (1) each side

Each shall be installed inside a one-piece housing, one each side. The lower rear warning light shall be included in the 3 light housing.

REAR LOWER LIGHTS BEZEL COLOR

The surface mounted lower stop/tail/turn and back up lights shall include chrome bezels.

REAR LOWER LIGHTS LENS COLOR

The surface mounted lower stop/tail/turn and back up lights shall include colored lenses to match the light color.

STOCK UNIT #1740- INITIAL ATTACK

LICENSE LIGHT AND BRACKET

A polished aluminum LED license plate light and bracket shall be installed on the rear of the vehicle.

LED CAB GROUND LIGHTS (2)

Under body lighting will be provided for the apparatus cab doors. Two (2) LED strip lights with clear lenses will be mounted below the apparatus cab, one (1) under each cab door. The lights will be controlled by the parking brake switch.

LED PUMP GROUND LIGHTS (2)

Under body lighting will be provided for the apparatus pump module. Two (2) LED strip lights with clear lenses will be mounted below the runningboards, one (1) each side. The lights will be controlled by the parking brake switch.

LED BODY GROUND LIGHTS (4)

Under body lighting will be provided for the apparatus body sides. Four (4) LED strip lights with clear lenses will be mounted below the apparatus body, one (1) under each compartment. The lights will be controlled by the parking brake switch.

LED REAR TAILBOARD / BUMPER GROUND LIGHTS (2)

Under tailboard/bumper lighting will be provided for the rear of the apparatus. Two (2) LED strip lights with clear lenses will be angle mounted below the rear tailboard/bumper. The lights will be controlled by the parking brake switch.

RECESSED STEP LIGHTS - LED

There shall be LED recessed step lights mounted in such a manner as to light the area around the runningboards, tailboard, walkway, and rear intermediate step, if applicable.

PUMP SERVICE LIGHT

There shall be an LED light with clear lens mounted inside the pump compartment to provide sufficient lighting.

COMPARTMENT DOOR SWITCHES

All exterior compartment doors will be provided with a door switch that shall activate the "Door Ajar" indicator light. The switch shall be installed not to interfere with loading or unloading the equipment stored within the compartment.

DOOR AJAR INDICATOR

There shall be a red flashing door-ajar indicator located on the cab in easy view of the driver. The light shall be illuminated automatically whenever the apparatus parking brake is released and the following conditions exist:

- Any passenger or equipment door is open.
- Any ladder or equipment rack is not in the stowed position.
- Powered light tower is extended.
- Any other device is opened, extended or deployed that creates a hazard, or is likely to cause damage to the apparatus if it is moved.

STOCK UNIT #1740- INITIAL ATTACK

HOSEBED LIGHT

A LED strip light shall be installed to light the hosebed. The light shall be activated by the park brake switch. The light shall be protected and be mounted at the front of the hosebed.

FRONT SCENE LIGHT

The front of the cab shall include Forward facing LED takedown lights which shall be included in the lightbar.

SIDE SCENE LIGHTS

The front upper sides of the body shall include two (2) Whelen M9 EZ scene lights, one (1) each side which shall be surface mounted.

SIDE SCENE LIGHTS

The rear upper sides of the body shall include two (2) Whelen M9 EZ scene lights, one (1) each side which shall be surface mounted.

REAR SCENE LIGHTS

The rear of the body shall include two (2) Whelen M9 EZ scene lights, one (1) each side which shall be surface mounted.

SCENE LIGHTING BEZEL COLOR

The surface mounted scene lights shall include chrome bezels.

SCENE LIGHTING SWITCHING

The body and/or cab mounted scene lights shall include switches in the cab. Each side of the apparatus will include its own switch if applicable.

SCENELIGHT BACKUP MODE

The rear scene light circuit shall be programmed to allow automatic use of the lights when the vehicle is placed in reverse.

POWER AND GROUND STUDS - RADIO WIRING

An auxiliary set of power and ground studs shall be provided and installed in the console.

Both 12V constant hot and 12V master power shall be provided.

Radio installation not included unless otherwise noted.

ANTENNA WIRING (2)

The apparatus shall have two (2) antenna bases and cables supplied and installed as directed. The whip shall be customer supplied. The antennas cables shall be ran to the cab console.

BACKUP CAMERA WIRING

Wiring and a weather shield shall be supplied for the chassis supplied backup camera. The camera shall be installed below the hosebody handrail, rear step or some other mechanism to prevent damage.

STOCK UNIT #1740- INITIAL ATTACK

NFPA WARNING LIGHTS

The optical warning system on the fire apparatus shall be capable of two separate signaling modes during emergency operations. One mode shall signal that the apparatus is responding to an emergency and is calling for the right of way. The other mode shall signal that the apparatus is stopped and is blocking the right of way.

The switching for the two different modes shall be through switches and relays that sense the position of the parking brake.

CAB FRONT LIGHTBAR

One (1) Whelen brand Liberty WeCanX lightbar shall be mounted centered on the front of the cab roof. The lightbar shall be 54.00 inches in length. The lightbar shall feature eight (8) red LED lights and two (2) clear LED lights. The lightbar shall include an integrated photocell and vehicle-to-vehicle sync module. The clear lights shall be disabled with park brake engaged.

Forward facing LED takedown lights shall be included in the lightbar.

INBOARD FRONT WARNING LIGHTS

The front grille shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the grille within a bezel.

The warning lights shall be red.

INTERSECTION WARNING LIGHTS

The front bumper tail or the corner of a commercial cab hood shall include two (2) Whelen M4 series Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the apparatus within a bezel.

The warning lights shall be red.

REAR WHEEL WELL WARNING LIGHTS

The rear wheel wells shall include two (2) Whelen M4 LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the sides of the body within a bezel.

The warning lights shall be red.

REAR TAILBOARD SIDE WARNING LIGHTS

The rear tailboard shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted within a cast housing located on the top of the tailboard sides.

The warning lights shall be red.

STOCK UNIT #1740- INITIAL ATTACK

FRONT UPPER BODY SIDE WARNING LIGHTS

The front upper body sides shall include two (2) Whelen M9 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the apparatus within a bezel.

The warning lights shall be red.

REAR UPPER BODY SIDE WARNING LIGHTS

The rear upper body sides shall include two (2) Whelen M9 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the apparatus within a bezel.

The warning lights shall be red.

UPPER REAR WARNING LIGHTS

The upper rear of the apparatus shall include two (2) Whelen M9 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the apparatus within a bezel.

The warning lights shall be red.

LOWER REAR WARNING LIGHTS

The lower rear of the apparatus shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the apparatus within a bezel.

The warning lights shall be red.

WARNING LIGHTING BEZEL COLOR

The body and/or cab surface mounted warning lights shall include chrome bezels.

WARNING LIGHTING LENS COLOR

The body and/or cab surface mounted warning lights shall include colored lenses to match the warning light color.

WARNING LIGHTING SWITCHING

The body and/or cab mounted warning lights shall include switches in the cab. Each side of the apparatus will include its own switch if applicable.

A master warning light switch shall also be included.

TRAFFIC ADVISOR

A Whelen TAL65 LED traffic advisor shall be installed on the rear of the apparatus, as high as is practical. The light is a six (6) head LED bar and controlled by a Whelen control head.

The light shall be mounted within and protected by an intermediate step.

STOCK UNIT #1740- INITIAL ATTACK

SIREN CONTROL HEAD

The siren shall be controlled by the Whelen Core system along with the CCT6 controller.

ELECTRONIC SIREN SPEAKER

The bumper shall include one (1) Whelen Engineering Inc. model SA315P, 100 watt speaker which shall be mounted within the bumper fascia.

APPARATUS WARRANTY - ONE YEAR

The completed apparatus shall be warranted to be free from defects in workmanship and materials under normal use and service for a period of one (1) year from the date of delivery to the Fire Department. This warranty shall cover the costs for parts and labor for this period of time.

EXTENSION LADDER

One (1) Alco-Lite PEL-12, 12 foot two-section aluminum extension ladder shall be provided on the apparatus. The ladder shall meet or exceed latest NFPA standards.

PIKE POLES (2)

Two (2) Duo Safety 6' pike pole with round handle shall be provided on the apparatus. The pike pole shall be of fiberglass construction.

SUCTION HOSE

Two (2) 6" x 8 foot lengths of AWG flexible suction hose shall be provided and equipped with lightweight couplings.

WHEEL CHOCKS

One (1) pair of Worden model HWG Grip-Lock aluminum wheel chocks shall be mounted on the apparatus. They shall be mounted in model U815 slide-out brackets.

WHEEL CHOCKS LOCATION

The wheel chocks shall be mounted fore of the rear axle on bottom side of the lower compartments.

PURCHASER'S RESPONSIBILITY

These specifications are as complete, accurate and up to date as possible; however, it is the purchaser's responsibility for the safe, legal operation and maintenance of this apparatus and equipment.

DELIVERY PREP

The apparatus shall be detailed and cleaned prior to delivery.

All metal edges shall be carefully sanded and rounded. All compartment and exterior sheeting seams shall be carefully caulked.

Any loose equipment shall be stored on the truck.